OXFORD UNIVERSITY PRESS | QJM: An International Journal of Medicine

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Journal:	*QJM: An International Journal of Medicine*
Manuscript ID	Draft
Manuscript Type:	Clinical Picture
Date Submitted by the Author:	n/a
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Keywords:	Cancer, Cardiovascular disease

Rare but devastating: a case of pericardial mesothelioma

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Word count: 358

Clinical picture

A 68-year-old male presented with symptoms of dyspnoea, productive cough, profound lethargy, weight loss and hematemesis. He was a retired heating engineer with a history of asbestos exposure; two years previously underwent pleural biopsy that confirmed epitheloid mesothelioma. His chest radiograph showed left lower lobe consolidation, a pleural effusion and increased cardiothoracic ratio. He underwent echocardiography that showed a possible thrombus and he was referred for a Cardiac magnetic resonance (CMR).

CMR imaging revealed meditational shift with a large left sided mass infiltrating the pericardium, measuring 4.7 x 3 cm over the apical lateral left ventricle and right ventricle free wall. T2 weight images denoted pericardial infiltration with high signal intensity relative to the myocardium. Contrast enhanced images indicated a laminar thrombus in left ventricular apex, as well as signs of necrosis and haemorrhage in the pericardial infiltrate. An ejection fraction of 63% was recorded with no suggestion of pericardial constriction. This patient deteriorated with increasing fatigue and breathlessness and died three weeks later.

Malignant mesothelioma is a rapidly fatal epithelial neoplasm that arises from the pleura, peritoneum and pericardium. Clinicians need to be aware that 80% of patients have a history of asbestos exposure, and prolonged exposure is associated with a shorter latency period to disease development. Following prediction from levels of asbestos exposure in the 20th century, peak of mortality from malignant mesothelioma should span from 2011 to 2015, and a decline in death rate should

now be observed. Despite this, cases are still seen and early diagnosis results in improved outcome.

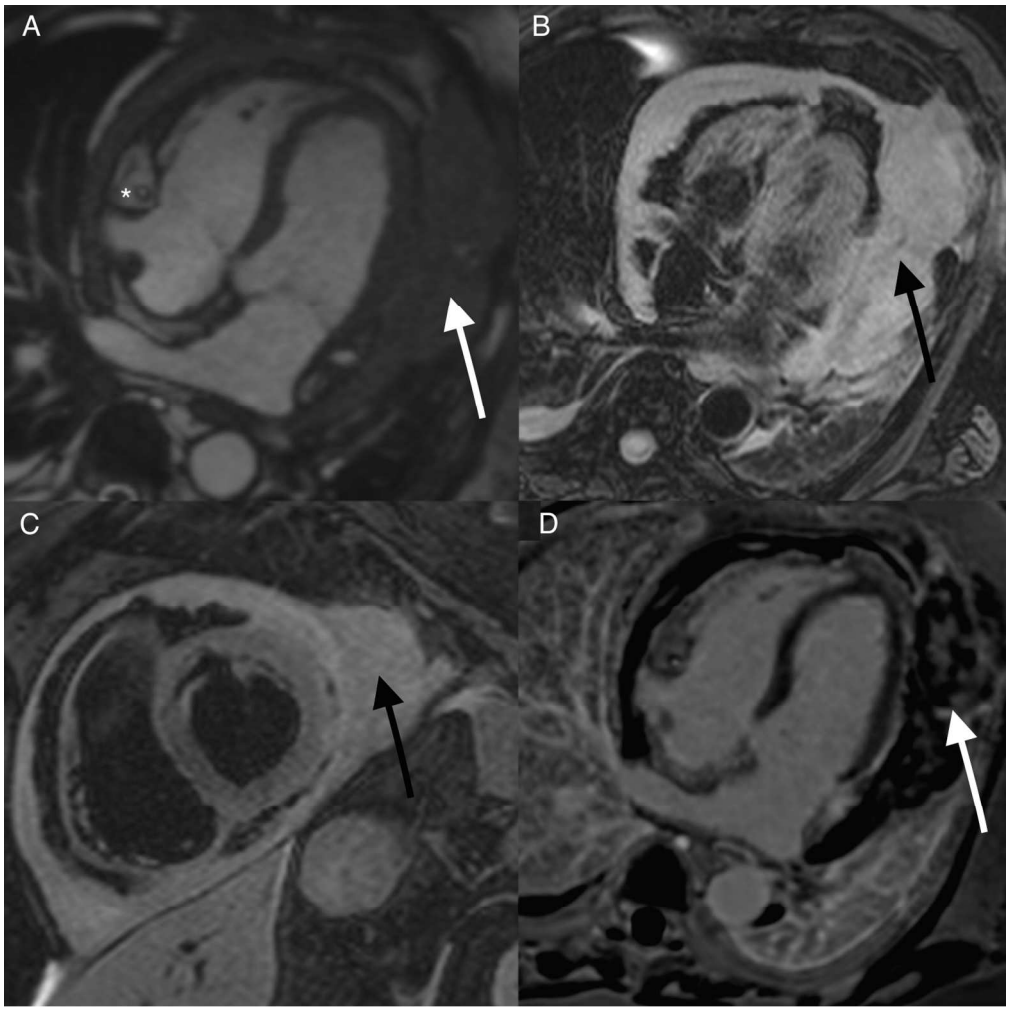
Figure Legends

Figure 1A

3 chamber, T2 weighted image showing large circumferential pericardial mass (black arrow) with pericardial effusion (PE). Left atrium (LA), left ventricle (LV) and aorta marked.

Figure 1B

Four chamber image following late gadolinium enhancement, showing areas of necrosis and haemorrhage within the pericardial mass (marked with white arrow). LV, LA, Right ventricle (RV), right atrium (RA) marked.



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